



A large change in temperature between neighbouring days increases the risk of mortality

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Abstract:

Background: Previous studies have found high temperatures increase the risk of mortality in summer. However, little is known about whether a sharp decrease or increase in temperature between neighbouring days has any effect on mortality. Method: Poisson regression models were used to estimate the association between temperature change and mortality in summer in Brisbane, Australia during 1996-2004 and Los Angeles, United States during 1987-2000. The temperature change was calculated as the current day's mean temperature minus the previous day's mean. Results: In Brisbane, a drop of more than 3°C in temperature between days was associated with relative risks (RRs) of 1.157 (95% confidence interval (CI): 1.024, 1.307) for total non-external mortality (NEM), 1.186 (95%CI: 1.002, 1.405) for NEM in females, and 1.442 (95%CI: 1.099, 1.892) for people aged 65-74 years. An increase of more than 3°C was associated with RRs of 1.353 (95%CI: 1.033, 1.772) for cardiovascular mortality and 1.667 (95%CI: 1.146, 2.425) for people aged

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location:

resource focuses on specific location

Non-United States, United States

Non-United States: Australasia

Health Impact:

Climate Change and Human Health Literature Portal



specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Morbidity/Mortality

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): cardiovascular disease mortality

Population of Concern: A focus of content

Resource Type: 

format or standard characteristic of resource

Research Article

Timescale: 

time period studied

Time Scale Unspecified